

AMENDMENTS TO THE CLAIMS

Please amend all claims as noted below.

1. (Currently amended) A computer implemented system that facilitates access to industrial data, comprising the following computer executable components :

an industrial control processing unit with a mapping component that generates a database table(s) from data associated with an industrial device(s), the database table(s) accessible through a standard database interface without requirement of proprietary data access software tailored for the industrial device(s), and

an arbiter component that facilitates access between industrial devices and computer networks for an access to the database tables.

2. (Currently amended) The computer implemented system of claim 1, a standard database connection associated with the standard database interface is a Java DataBase Connectivity (JDBC) connection.

3. (Currently amended) The computer implemented system of claim 1, the database table is a relational database table.

4. (Canceled)

5. (Currently amended) The computer implemented system of claim 1, the database table is accessed *via* one or more remote systems that employ disparate operating systems.

6. (Currently amended) The computer implemented system of claim 5, the disparate operating systems include one or more of UNIX, HPUX, IBM, AIX, Linux and Microsoft.

7. (Currently amended) The computer implemented system of claim 1, the access includes read and write access.

8. (Currently amended) The computer implemented system of claim 1, the data stored in the database table is transferred between the industrial device and a remote system as a binary file.

9. (Currently amended) The computer implemented system of claim 1, the interface component facilitates discovery of industrial device data and the database table.

10. (Currently amended) A computer implemented industrial control device comprising:
an interface that facilitates reading from and writing to one or more relational database tables stored within the industrial control device, without requirement of platform specific software tailored for an industrial device(s) controlled by the industrial control device,
a mapping component that maps one or more data structures associated with the industrial control device to the one or more relational database tables; the mapping component part of an industrial processing unit and
an intelligence component that employs classifiers to determine when, how and which data structures should be transformed to corresponding database tables.

11. (Currently amended) The computer implemented industrial control device [system] of claim 10, the mapping component is executed within one of a module of the industrial control device, a host computer, and the interface.

12. (Currently amended) The computer implemented industrial control device [system] of claim 10, the mapping component is executed without knowledge of industrial device data layout.

13. (Currently amended) The computer implemented industrial control device [system] of claim 10, the one or more relational database table are concurrently accessed for at least one of transaction commitment, transaction rollback and transaction termination.

14. (Currently amended) The computer implemented industrial control device [system] of claim 10, the standard database connection is employed to establish a connection with the interface by a remote device.

15. (Currently amended) The computer implemented industrial control device [system] of claim 14, the standard database connection is an SQL-compliant connection.

16. (Currently amended) The computer implemented industrial control device [system] of claim 14, the standard database connection is a Java DataBase Connectivity (JDBC) connection.

17. (Currently amended) The computer implemented industrial control device [system] of claim 16 further comprise utilizing a JDBC Open or Select command(s) to read data from the one or more database tables and a JDBC Post command(s) to write data to the one or more database tables.

18. (Currently amended) The computer implemented industrial control device [system] of claim 10 further comprises an intelligence component that facilitates mapping, reading and writing the industrial device data.

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Currently amended) A computer implemented method of accessing industrial device data, comprising:

generating a database table(s) from the industrial device data via a processing module;
establishing a connection with the industrial device via an SQL-compliant database connection;

discovering relational database tables stored within the industrial device via an intelligence component; and

accessing the data within the relational database tables, without platform specific data access software associated with the industrial device(s).

24. (Currently amended) The computer implemented method of claim 23, the SQL-compliant database connection is a Java DataBase Connectivity (JDBC) connection.

25. (Currently amended) The computer implemented method of claim 23, accessing data includes one of committing a transaction, rolling back a transaction and aborting a transaction.

26. (Canceled)

27. (Currently amended) The computer implemented method of claim 23 further comprises transferring data as compact binary packets.

28. (Currently amended) The computer implemented method of claim 23 further comprises concurrently accessing more than one of the relational databases.

29. (Currently amended) An industrial control processing system comprising:
means for opening a database connection with the industrial device;
means for mapping data from at least one data structure to at least one database table by employing an intelligence component with classifiers that determines when, how and which computer readable data structure should be transformed to corresponding database tables,
means for discovering the at least one database table; and
means for retrieving suitable protocols and configuration and accessing the discovered database tables.